

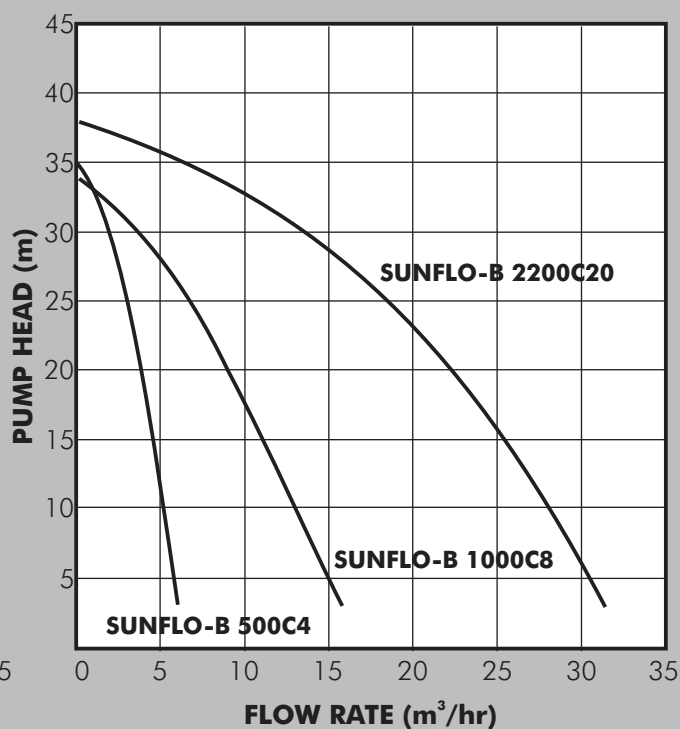
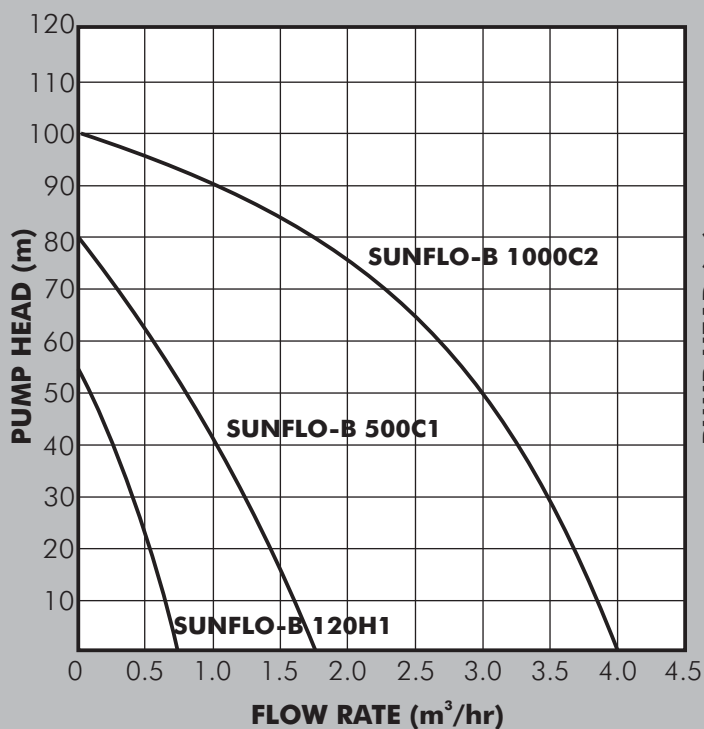
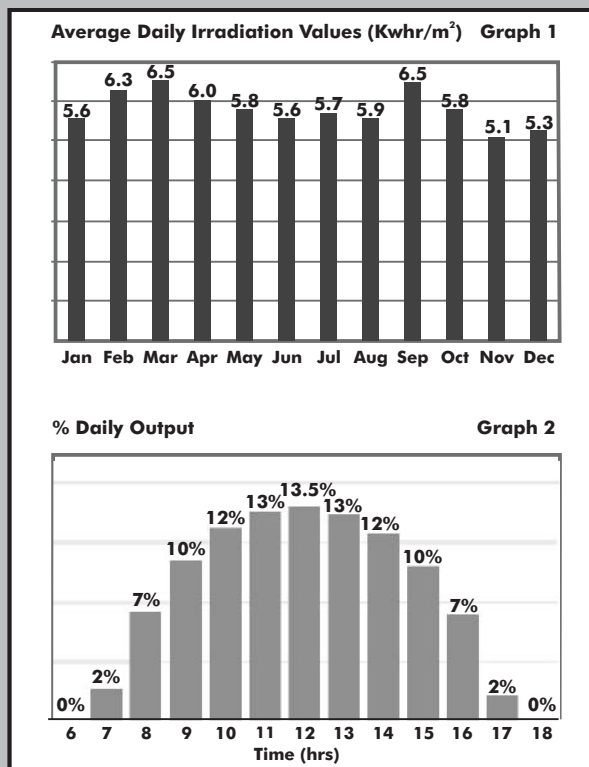
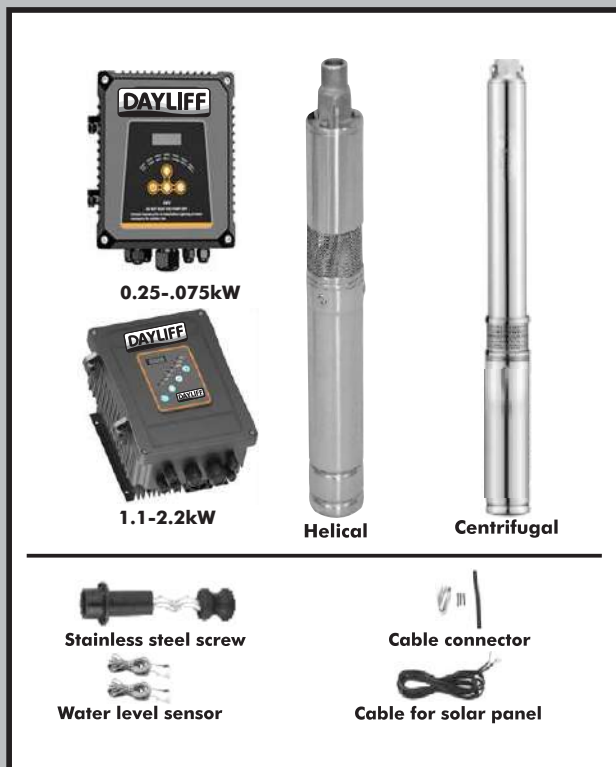
UPDATED



DATA SHEET

DC Solar
Submersible Pumps

SUNFLO-B



PUMP
DAYLIFF SUNFLO-B pumps are specifically designed for PV solar powered water supply from wells and boreholes. They are of centrifugal or helical rotor screw design and material of construction for rotary screw design are principally stainless steel with a rubber stator while centrifugal design features noryl impellers and stainless steel chambers. Pumps are supplied complete with a controller, cable connectors, water level sensor, solar PV connecting cables and spare rotor for helical type.

MOTOR
Permanent magnet, oil filled, brushless, DC motor specifically designed for maximum efficiency from solar module power sources. It should be powered by a solar array configured to provide the input voltage required and sized at approximately 130% of the rated motor power.

Enclosure Class: IP68 **Insulation Class:** B **Speed:**2900rpm

CONTROLLER
The pump is supplied with a seperate multifunction MPPT (Maximum Power Point Tracking) controller that tracks the solar module's maximum power output voltage which varies with module temperature and irradiation levels. This ensures maximum current output, typically +25% higher than conventional module controllers and a similar increase in daily water output. The controller also protects from over and under voltage, over current and low water level (if electrodes are fitted) and features various indicator lights that give the pump's operating status. The system can be installed either with or without batteries. If batteries are included, the pump will operate when there is insufficient solar irradiation for direct power.

PUMP OUTPUTS
Performance curves are given at standard test conditions of 1000W/m² solar irradiance and 25°C. Output will vary throughout the year depending upon prevailing irradiation levels. For estimated daily outputs at continuous pumping, multiply the indicated output at the duty point by the daily irradiation given in Graph 1. For indicative purposes, factors of 1.1 can be applied for hot arid areas and 0.9 for temperate high altitude areas in the Tropics. Output will vary throughout the day as a proportion of the estimated hourly irradiation as shown in Graph 2.

OPERATING PARAMETERS
Pumped Liquid: Thin, clean, chemically non-aggressive liquids with a sand content of less than 0.1%.
Ambient Temperature: -20°C - +50°C
Maximum Liquid Temperature: +40°C
Minimum Immersion Depth: 0.5m
Maximum Immersion Depth: 40m
Minimum Borehole Diameter: 125mm

PUMP DATA

Model	Type	Motor Rating (W)	Input Voltage (V)	Max Input Voltage (V)	Peak Voltage (V)	Open Circuit Voltage (VOC)	PV Modules (W)	DN (")	Dimensions (mm)		Wt (kg)
									Length	Width	
SUNFLO-B 120H1	Helical Rotor	120	24	50	≥30	<50	1x200W	¾"	76	820	12
SUNFLO-B 500C1	Centrifugal	500	48	100	≥60	<100	4x200W (2 No. Series, 2No. Parallel Strings)	1"	76	1020	17
SUNFLO-B 500C4		500	48	100	>60	<100	4x200W (2 No. Series, 2No. Parallel Strings)	1.25"	102	658	34
SUNFLO-B 1000C2		1000	110	200	≥112	<200	8x200W (4 No. Series, 2No. Parallel Strings)	1.25"	100	860	21
SUNFLO-B 1000C8		1000	110	200	>112	<200	8x200W (4 No. Series, 2No. Parallel Strings)	2"	102	793	38
SUNFLO-B 2200C20		2200	220	350	>220	<350	16x200W (8 No. Series, 2No. Parallel Strings)	3"	125	764	50

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